

Key Theories and Concepts of Aging: An Examination of Interdisciplinary
Principles and Their Application to Life

An Honors Thesis (HONRS 499)

by

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Abstract

This examination of key theories and concepts of aging is divided into three interdisciplinary areas of exploration: biology, psychology, and sociology. Biological theory looks at age-related changes on the cellular and molecular levels, psychological theory examines cognitive deficits, self-identity, and dealing with loss, and sociological theory explores functional relationships in old age and dependency amongst different age-related cohorts. Finally, an introspective essay deals with personal experiences and feelings related to aging and incorporates the themes of key theories of aging into everyday life, in the aspects of personal experience with family and nursing practice. These four sections work together to provide examples of both objective and subjective age-related changes in elderly adults.

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An Introduction to Aging

Aging is a natural phenomenon that occurs as life progresses, in terms of years passed, developmental milestones, and lifetime achievements. It is a multi-faceted, complex process associated with many societal beliefs and physical changes. Even with advances in medical technology, there are no specific ways to slow the passing of years, totally restore lost abilities, or change the way society may view the process. However, as the world's aged population grows, it is impossible to deny the needs of the elderly or assume that aging occurs in a predictable pattern for everyone. Numerous factors are involved in the biological, psychological, and sociological processes that go along with it.

The elderly population of the United States is steadily increasing. Since 1990, the number of persons aged 65 and older has increased 11-fold, while the total U.S. population has increased only 3-fold (Dunkle, Roberts, & Haug, 2001). The fastest growing cohort is the 85-year and older group, and as the baby boomers age, this group will continue to grow. As reported by a 1997 study by the U.S. Department of Health and Human Services, 41% of people now working feel that it is somewhat likely that they will live to 85 years of age. A striking 23% said that they believe they could live to 90 years old, and 15% believe they could live until 95 years old (Swanson, 1999). Because of this rapid increase in the elderly population, the study of gerontology is becoming a growing area of research in scientific study.

Specifically, gerontology is the "study of the aging process, including illness and disease" (Ellis and Knowlis, 1994). It is a complex field, encompassing many societal norms and values about the elderly, as well as theories that attempt to explain common occurrences with age. Of intense interest is the topic of successful aging. According to behavioral scientists, successful aging is "a social psychological, processual construct that reflects the always-emerging, socially

esteemed ways of adapting to and reshaping the prevailing, culturally recognized conditions of mind, body, and community for the elderly of a society" (Baltes & Baltes, 1990). It is odd that gerontologists even consider success and aging as one entity, because they represent a near contradiction: aging implies a loss, decline, and approaching death, while success connotes gains and a positive balance. Putting them together seems paradoxical, but the contradiction is one that is intended to provoke an analysis of the nature of old age (Baltes & Baltes, 1990).

In gerontology, length of life is most often proposed as the sole indicator of successful aging. However, the mere "survival of the fittest" alone does not explain the phenomenon of successful aging, illustrated by the first motto of the Gerontological Society of America "adding life to years, not just more years to life" (Baltes & Baltes, 1990). James Birren, a leader in gerontological research, states,

"By itself, the collection of large amounts of data showing relationships with chronological age does not help because chronological age is not a cause of anything.

Chronological age is only an index, and unrelated sets of data that show correlations with chronological age have no intrinsic or causal relationship with each other" (Bengtson & Shaie, 1999, p. 460).

Aging, successful or pathological, is a holistic experience that encompasses physical, psychological, and sociological changes that affect all people in varied ways. This varied complexity necessitates the discussion of aging via different perspectives.

To consider any process or life experience, it must be viewed in two ways: through objective and subjective criteria. Data analysis and theory help to formulate normative criteria, but aging cannot be considered successful if the person does not see it as such. Aging follows some predictable norms but is also a process subject to alteration by environment and personal

experience. Subjective criteria must be supplemented with objective criteria and vice versa (Baltes & Baltes, 1990).

The following project is a testament to aging that encompasses both the normative, theoretical, scientific explanations of aging, as well as an introspective look at how these theories integrate themselves into everyday life. By approaching the topic of aging through objective and subjective means, one may be able to more fully understand the complex beauty of this natural phenomenon.

Age-related Theory

Merriam-Webster's Dictionary (1997) defines theory as "...a plausible or scientifically acceptable general principle offered to explain observed facts." Theories are used in pure and applied sciences to build knowledge and understanding in a systematic and cumulative way. In other words, they can help to explain why things occur over and over again. Good theories integrate different sources of knowledge, explain phenomena, and present interventions to improve conditions (Bengston & Shaie, 1999).

In gerontological theory, explanations are made to explain both the general processes and subsequent consequences of aging. When gerontologists formulate a theory, an honest attempt is made to find normative data to make conclusions about the psychological, biological, and sociological processes that occur concurrently. In short, gerontologists are attempting to address three main areas: the aged, or those categorized by society as "elderly" in terms of years of life lived; aging as a developmental process, or how our species grows old in terms of growth and development, psychological, and social processes; and the study of age as a dimension of structure and behavior within our species, including age-related patterns (Bengston & Shaie, 1999). This task is no easy one: a broad look at aging theories delves into many areas of

medicine, psychology, and sociology. In fact, there are over 300 different aging theories based upon different medical specialties (Austad, 1997).

Through this examination of biological, psychological, and sociological theory, scientists and the general population can transform data regarding aging into meaningful knowledge for use. Through biological theory, aging can be described in terms of length or viability. In psychological theory, changes in personal perception, learning, and memory can be explored. In sociological theory, life satisfaction, adjustment, and attachment are analyzed. A combination of these three areas of theory helps one to understand the complexity and interdependency of phenomena that occur during the aging process (Bengston and Shaie, 1999).

Biological Theory. Biologically speaking, humans (or any other species) are not immortal. Just as every other living entity in this world, our bodies' functions gradually decline with age. This process is manifested in many body systems and the process varies greatly from person to person. Bones and muscles deteriorate, causing a shortened stature, along with atrophied muscles and generalized weakness. The elastic recoil of alveoli in the lungs decreases, resulting in more difficulty breathing, especially with prolonged exertion. The motility of the gastrointestinal tract decreases, often triggering constipation. Wrinkling is a result of a loss of subcutaneous fat. Hair whitens and grays due to a loss of pigment and the skin becomes dry and fragile (Ellis & Nowlis, 1994).

Though most of these changes occur at a predictable time and rate for many people, the age of onset and rate of occurrence can vary from person to person. Though humans are biologically capable of living a maximum lifespan of 121 years, most do not live that long. In 1900, the average life expectancy was 47 years. In 1996, average life expectancy had reached 79 and this number increases and expands due to cumulative research in gerontology and advances

in medical technology (Swanson, 1999). According to Dr. Thomas Perls, director of the New England Centenarian Study at Harvard Medical School, nearly all Americans have genes that should allow them to live into their 80s ("Number of Americans 100 or older up 35 percent," 2001). The goal of biological theory is to explain why this might hold true for some while not for others. More specifically, biologists look at the cellular components of our bodies to predict patterns of successful and pathological aging.

There are a number of gerontological theories that attempt to explain the physical decline associated with aging. Among these is a theory of general wear and tear of the body, where cells and tissues are used until they tire out and can no longer properly function. This process can be further subdivided into stochastic damage, which occurs randomly and can differ from person to person; and programmed damage, which is a developmental process that occurs more predictably (Bengston & Shaie, 1999). Biologists believe that a programmed decline in the body's immune system leads to an increased vulnerability to infectious disease, thus accelerating the aging process and decreasing health. The endocrine system is also programmed where hormones control the pace of aging (Swanson, 1999).

Biological theory also contends that a combination of genetic, biochemical, and physiological activities determine life span and health. One of the most widely accepted biologic theories of aging is that of programmed cell senescence. This mechanistic theory states "aging is a result of the sequential switching on and off of certain genes, with senescence being defined as the time when age-associated deficits are manifested" (Swanson, 1999, p.4). In 1961 at the Wistar Institute in Philadelphia, Pennsylvania, cell biologist Leonard Hayflick, and his partner, Paul Moorehead, attempted to study aging by looking at the growth of cells within laboratory

dishes. Their findings led an entire generation of gerontologists to investigate the links between cell senescence and human life span (Austad, 1999).

Cell mitosis occurs with the duplication and division of chromosomes within a cell's nucleus, and the rest of the cell divides afterward. It was once thought that this process went on indefinitely. However, after a number of divisions, cells do not attempt to proliferate and DNA synthesis is blocked. For example, human fibroblasts (collagen-producing cells) divide about 50 times and then stop. Other cells within the body divide more or less times, depending on their specific body function. Hayflick and Moorehead coined this phenomenon the "Hayflick limit" and theorized that once cell division and proliferation stops, an organism is no longer compatible with life. Their research focused on the Hayflick limit of different types of cells and their connection to the length of human life (Swanson, 1999).

Scientists have also found that certain genes trigger cell proliferation (mitosis), while others suppress it. An example of a proliferator-gene is *c-fos*, which encodes a protein that is thought to regulate expression of other genes in cell division. Mechanistically, suppressor genes put an end to such proliferation (an example of cell senescence). However, cells are sometimes capable of escaping this control mechanism, becoming biologically immortal and forming tumors. There are indicators that a complex control system regulates these two types of genes, maintaining optimal health and longevity. A failure of anti-proliferative genes may cause cells to divide unnecessarily and excessively and possibly point to a cause of cancer development (Swanson, 1999).

The discovery of cell telomeres is yet another development in the investigation of cell senescence. Telomeres are tails at the ends of chromosomes that are made up of short sequences of DNA bases repeated thousands and thousands of times. A number of these bases are shed

with each division, causing the telomere to shorten in length. Thus, a look at a telomere can help to approximate how many cell divisions have occurred and how many are left. However, in a cancerous cell, telomeres do not shorten, and researchers have found that an enzyme, called telomerase, enables these telomeres to replace lost sequences, making the cells immortal. These errors in cell proliferation and cell structure help to understand the process of aging on the cellular level (Swanson, 1999).

On the molecular level, biological theories of aging propose that cell death occurs because of systematic damage. Denham Harman at the University of Nebraska first proposed the idea of oxygen radical damage, which helps to explain some age-related changes (Swanson, 1999). In mitochondria (the energy-producing component of the cell), food is broken down into energy and a few percent of broken down oxygen molecules fail to be incorporated into water molecules, as they should. This free oxygen radical attempts to find a pair for its electron, taking one from another cell, which causes that cell to become unstable and begin a chain reaction. This chain reaction can alter cellular tasks and form harmful compounds that are capable of causing damage to cells and body systems (Austad, 1997). These free radicals are not only associated with the age-related changes, but are also linked to many degenerative diseases, such as cancer, atherosclerosis, cataracts, and neurodegeneration (Swanson, 1999).

Fortunately, free radicals are counterbalanced by antioxidants, which are able to disarm these molecules. Under some conditions, vitamins A, C, E, and beta-carotene, as well as enzymes such as superoxide dismutase, catalase, and glutathione peroxidase have the ability to act as antioxidants. The theory of free radicals contends that these vitamins and enzymes prevent most oxidative damage, but little by little the damage mounts and contributes to deteriorating tissues and organs (Swanson, 1999).

Another look at biological aging on the molecular level deals with blood glucose levels. In a process called non-enzymatic glycosylation, glucose molecules attach themselves to proteins, beginning a chain of chemical reactions that ends in the proteins binding together, or cross-linking. These cross-links, called advanced glycosated end products (or AGEs) alter the structural roles of cells. They are associated with stiffening collagen, hardening arteries, cataracts, loss of nerve function, and less efficient kidneys. This process seems to be accelerated in those with higher glucose levels, particularly diabetics. Complications of this disease are much like age-related complications and diabetics usually have shorter life spans (Swanson, 1999).

The body's defense against AGEs is macrophages, which are white blood cells that seek out, engulf, break down, and eject AGEs into the blood to be filtered by the kidneys and excreted in the urine. With age the glomerular filtration rate of the kidneys decreases and macrophages become less active, placing a significant strain on the battle against this part of the aging process. This idea of cross-linking, AGEs, and bodily defenses against them is the potential target of many anti-aging drugs (Swanson, 1999).

In general, biologic theory looks at how the body is damaged at the cellular and molecular level. Though there are natural defenses against each of these changes, damage is cumulative and eventually results in an organism's death. The efficiency of each body system ultimately determines healthy life span, and no single biological theory can account for all of the changes that take place as we age, for they are all interactive and interdependent processes (Swanson, 1999).

Psychological Theory. Psychology relates to aging on a personal level, where an individual must consciously and unconsciously find ways to cope with changes in environment

and physical self. Psychological theories focus primarily on developmental tasks associated with various changes throughout life. Self-identity and purpose, optimization of acquired skills and knowledge, and dealing with loss are all psychological components of aging.

The Roman philosopher Cicero looked at aging in an essay dating back to 44 B.C., entitled "De Senectute." He used himself as an example for the effectiveness of his discourse on aging, which promotes the power of the individual mind in constructing a positive image. His account is optimistic, and focuses on the theory that positive thinking can help to control life beyond the constraints of biology. Cicero also believed that memory loss is a general phenomenon of brain disease and is a selective process in which the elderly forget only what they perceive as irrelevant. Though Cicero's commentary is based only on his personal experiences with aging, his points are relevant as more modern psychological theories of aging are explored (Baltes & Baltes, 1990).

Changes in cognition are also a natural part of aging. Whether these deficits are true or a product of environmental stimulation is still under intense debate. Given extensive lifetime experiences, older people are expected to have large stores of knowledge and use higher levels of thinking based upon these lifetime stores. However, older adults are still capable of learning, and studies show that adults 60 to 80 years of age are able to acquire new cognitive skills and benefit from practice much like younger adults do (Baltes & Baltes, 1990). Some gerontologists argue that people experience little or no decline with increasing age, but become obsolete because people from more recent generations perform at successively higher levels on many cognitive tests than do earlier generations (Bengston & Shaie, 1999). It is also necessary to consider that if cognitive deficits do occur, it could also play a catalytic role for positive change,

where the affected person makes a concerted effort to overcome these deficits by excelling in other areas (Bengston & Shaie, 1999).

The theory of selective optimization with compensation helps to explain cognitive deficits that occur with age and how a person might help to compensate for these deficits. This concept allows an elderly person the opportunity to effectively choose which functions are important and make changes that help to improve and overshadow other deficits. Selection includes restricting the life to fewer domains of functioning. It is an adaptive function where the person concentrates on domains of function that are of high priority and involve a convergence of motivations, skills, and biological capacity. Optimization includes augmenting these domains of function to maximize their chosen life courses. Compensation becomes operative when specific capacities are lost and also employs technology (such as assistive devices like hearing aids or medical interventions like surgery) to help to counteract such deficits (Baltes & Baltes, 1990).

Selective optimization with compensation allows the elderly to engage in life tasks that are important to them, despite a reduction in energy or mental reserves. Development at any phase of the life cycle encompasses gains and losses, and the necessity to stabilize becomes more pressing when losses outnumber gains (Abeles, Gift, & Ory, 1994). In every individual case of successful aging, there is likely to be a creative, societally accepted combination of selection, optimization, and compensation (Baltes & Baltes, 1990). For example, a grandmother who is the prized cook of the family may employ the use of selective optimization with compensation to maintain her abilities and role status within the family. First she may cook for the entire family only on special holidays, rather than every Sunday afternoon and every holiday (selection). Then she may cook using the family recipe, rather than memory, to help her to remember all of the

ingredients and amounts (optimization). Finally, she may use pre-cut vegetables or get help from her grandchildren to reduce energy expenditure while preparing the food (compensation). This process thus allows her to identify deficits but constructively use interventions to make up for the losses.

Not only do aging individuals attempt to preserve function because of cognitive deficits but, as age increases, they also employ a variety of techniques to preserve function, largely due to a change in independent and societal tasks. The concept of developmental tasks and shifts in functional levels are of importance in the discussion of psychological aging. Erik Erikson's theory of psychosocial development is most widely accepted by lifespan gerontologists and developmentalists and addresses many of the characteristics of the self that persist but are subject to change over the lifespan (Friedrich, 2001). Over a period of years, key choices and decisions may be made in major life domains, such as those concerning work, personal relationships, and independence (Baltes & Baltes, 1990). Transitions and events occur throughout the lifespan and goals are set and remain relatively consistent throughout life (Friedrich, 2001). These thoughts are summarized by the words of psychologist John Bowlby:

"Change continues throughout the life cycle so that changes for better or for worse are always possible. It is this continuing potential for change that means that at no time of life is a person invulnerable to every possible adversity and also that at no time of life is a person impermeable to favorable influence." (Baltes & Baltes, 1990, p. 296)

For each stage of Erikson's psychosocial development, there are crises or primary tasks that must be mastered before progressing to the next developmental level. In early adulthood, the main task is intimacy versus isolation, where a young adult faces life independent of his or her parents, but is also looking for a soul mate and companionship from other adults. In middle adulthood,

the conflict is generativity versus stagnation, where the person attempts to reaffirm his or her own life by means of passing values on to the next generation. In late adulthood, development focuses on integrity versus despair, where one gains an appreciation of life's meaning in context of the fact that one cannot live forever. Optimum ego integrity is developed while overcoming fear and depression related to death (Friedrich, 2001). This ego incorporates triumphs and despairs of the past into self-acceptance, which helps to establish a core of central being in later life (Gobble, 1992).

Carl Jung is yet another psychoanalytic theorist that proposed a shift of self-generated needs that occurs specifically during midlife (Bengston & Shaie, 1999). In middle adulthood and beyond, one reflects upon his or her personal agenda, as well as those of significant others. This self-introspection, relationship with others, and personal insight bring meaningfulness to life (Friedrich, 1997). This midlife shift is characterized by an emergence of the parts of oneself that have been previously hidden, and optimum mental health entails recognizing and integrating these qualities (Bengston and Shaie, 1999). "Midlife reevaluations and reintegrations appear to be the result of a shift in a naïve epistemology through which individuals reconstruct the meanings of a number of everyday constructs from relatively external to more internal ones" (Bengston & Shaie, 1999, p. 259). The search is for a self that transcends the cultural language of emotions and attempts to differentiate the self from that cultural language.

With a sense of ego integrity that remains consistent in older age, it doesn't necessarily negate relationships with others or the overwhelming emotions encountered by loss. Increasing age is typically accompanied by the loss of relationships, and coping with loss is an important part of successful aging. Women frequently outlive their husbands and only one-quarter of widows remarry within five years. In fact, the average woman remains widowed for the rest of

her life, which is an average of 19.5 years. Widowhood is also associated with a higher mortality rate, primarily due to the influences of depression, suicide, and substance abuse. Because loss is so closely identified with aging, it is impossible to deny anyone of the need to mourn and adapt to changing life roles and patterns when considering the aging process (Baltes & Baltes, 1990).

Through psychoanalytic theory, Freud investigated the task of mourning in his essay "Mourning and Melancholia." He states that the task of mourning is a gradual surrender of psychological attachment to the deceased. This internal struggle of yearning for the person while facing their loss must be relinquished for the process to be complete. The process of mourning includes stages of denial, preoccupation with thoughts of the deceased, a review of memories, and a gradual withdrawal of these feelings. It is complete when enough interest and energy are regained to invest in new relationships (Baltes & Baltes, 1990).

John Bowlby also theorized ways to deal with grief by means of attachment (Bengston & Shaie, 1999). Attachment is an internal emotion experienced at all ages, but first evolves in young children around ten months of age as separation anxiety from the mother and generalized fear of strangers (Wong, Hockenberry-Eaton, Wilson, Winkelstien, & Schwartz, 2001). As children age, they begin to adopt the idea of object permanence and realize that the parent will return. This idea transcends into adulthood, as attachments are made to other family members, friends, and spouses. When these attachments are threatened, one protests to preserve them, just as a baby protests when its mother leaves the room. Bereavement is thus an unwilling separation that gives rise to many forms of attachment behaviors, but unlike Freud, where the function of bereavement is on gradual withdrawal, Bowlby proposed that the function of bereavement is to reunite with the lost person or with someone else. Attachment behavior includes a grasp with the

realization that the person will return, or the bereaved will make another attachment to fill the loss (Baltes & Baltes, 1990).

Bowlby uses four stages of mourning to explain the mastery of bereavement, including numbness, yearning for the other person to reunite, giving up attempts to recover the deceased, and moving to break down attachments with the loved one in order to establish new ties. These stages move toward the ultimate goal of reorganization and recovery, as well as a return of former interests, which were vacated after the loss (Baltes & Baltes, 1990).

These phases of mourning are important in regaining the ability to form new attachments and overcome separation. Through psychological theory, one can fully understand more of the personal changes that are associated with aging. Despite these declines in cognitive function, developmental tasks, and changes in attachment to other people, a sense of self-identity and integrity are maintained and remain consistent throughout each and every one.

Sociologic theory. According to Ball State University's model of health and wellness, "The human organism is an open system in constant, dynamic interactions with its environment" (Gobble, 1992). Social relations are an important part of growth and development within the human lifespan. They may have a positive impact on preventative health behaviors, avoidance of high-risk activities, and maintaining optimal health (Gobble, 1992). Sociologic theory focuses on maintaining and preserving these beneficial social relations in relationship to life course in order to maintain health in old age.

Much like psychological theory, adaptation plays an important role in sociological aspects of aging. The continuity theory of aging is one that contends that adults attempt to preserve and maintain existing social patterns by applying familiar knowledge and skills. It is an evolutionary perspective where patterns of life persist over time and a person strives to meet set

goals for development. Though changes may occur throughout life, changes are managed by maximizing the linkages to both the past and the future. This is a concept of “possible self” in which the self is viewed in terms of the past, present, and future and a sense of integrity is maintained throughout the growth process (Gobble, 1992).

In continuity theory, people play an active part in the wellness process, and individuals have the ability to construct different lifestyles in order to adapt to their changing surroundings. Continuity theory also includes the central theme that social support is beneficial in maintaining health, and that people attempt to maintain social relations that are pleasing to them or which they have invested large amounts of time and energy. Continuity theory is a broad explanation of some of the social choices we make in order to preserve our own integrity as individuals (Gobble, 1992).

Just as people attempt to maintain their environment, the environment also serves to change them. It is true that people are not raised independent of other people. Therefore, individuals are not sole producers of their development, but are subject to cultural and natural constraints, which generate sometimes unpredicted and unintended side effects. The life course theory explains that society has an impact on the course of our lives and that change in society causes a change in an individual's life and vice versa (Baltes & Baltes, 1990).

Individuals pass through a succession of major life transitions from birth until death, including going to school, getting married, working, becoming a parent, and retiring. Society prescribes a timetable for these events, and when the events do not fall in correct sequence or rhythm, there is greater difficulty in coping with the challenges of life. To age successfully, life course theory suggests that one must be “on-time” when it comes to major life events. Most life

events do produce considerable stress, but if they occur when society prepares us for them, the stress that they do produce will be at a minimum (Baltes & Baltes, 1990).

Through social interaction and social structure, human organisms are transformed into valued human beings. These cohorts of people are influenced by the nature of the society in which they live and participate. During different time periods and generations, different societal changes make impacts on the way people age. Observed differences in characteristics such as marital status, health, intelligence, longevity, and wealth are all linked to social changes experienced within a specific time frame. The success of society and the individuals that make up that society depends upon the reaction to these changes and the adaptations that are made to successfully overcome such stressors (Bengtson & Shaie, 1999).

Though this life course theory explains how humans remain strongly tied to society throughout life, many adults gradually withdraw themselves from society as they age. Whether or not this is a positive thing depends on how one looks at it. Research shows that older adults who have physical symptoms that are indicative of disease (such as cancer, stroke, or heart attack) are more inclined to seek medical advice if a supportive person in their life makes sure that they seek help (Abeles, et al., 1994). Those with close personal relationships tend to seek help sooner, ensuring a more positive outcome, but unfortunately, not all older individuals have such close-knit relationships with others in society. Many elderly adults lose relationships as they age, and the theory of socioemotional selectivity was initially formulated to explain the reliable, age-related decline in social interaction with age. This is an active selection process where a reduction in social participation reflects the need to keep close relationships and discard more peripheral ones. Therefore, individuals rid themselves of relationships that supply no

emotional gratification. This focus on close emotional relationships gives rise to a more meaningful emotional experience at the end of life (Bengston & Shaie, 1990).

When considering the concept of socioemotional selectivity, it is valuable to consider the element of perceived time. If the individual perceives that only a short amount of life is left, he or she will attempt to meet only short-term goals and maintain only the closest relationships. On the other hand, if a long lifespan is perceived, the individual will be more inclined to attempt to reach more long-term goals and seek out more peripheral relationships. Thus, older people who assume that not much life is left prefer emotionally meaningful social partners and relationships, whereas younger people do not. Individuals seek emotional gratification at the end of life, and young people will behave in this way when similar time restrictions are imposed (Bengston & Shaie, 1999).

As these social relationships become fewer and more meaningful, the theory of learned dependency comes into play. This is a stable and predictable pattern that reinforces dependency and ignores independence. Learned dependency is a process that helps a person to optimize and maintain social contacts and conserve energies for other pursuits that have higher priority. This sense of dependency should not be equated with incompetence, but may be necessary for successful aging (Bengston & Shaie, 1999).

This dependence upon younger generations helps to more fully integrate individuals within families and society. When age barriers are removed, age integration brings people of different ages together, thus helping to increase the health of the elderly, relieve mid-life burdens, and facilitate learning about each other's experiences (Bengston & Shaie, 1999). Social relationships can help individuals within a family realize their changing roles and position within

the family while learning to appreciate the difference between different age cohorts than their own.

Introspective Essay on Aging

Throughout nursing school, I've had the opportunity to care for a variety of people in different age groups and developmental levels. From conception until death, life is an awesome process, and nurses have the knowledge and ability to help people cope with physical and psychological problems at all ages. I find myself drawn to geriatric patients because of their knowledge, their stories, and their unique and personalized views on life. I honor these experienced perspective points, striving for health and wellness at any age, and with an odd element of interest, wonder what implications my actions now may have on my life in the future. Aging successfully is a difficult task, a lifelong task, and I begin it here and now.

Before beginning this project, things seemed so very simple—eat right, don't smoke or drink in excess, exercise regularly, and it's easy to live to be 100. This project wasn't meant to give myself a more pessimistic view, but it forces me to realize that life matters so much more than the number of years lived. Aging encompasses more than just physical changes, and if it did, medicine would one day catch up with it. As behavioral psychologist B.F. Skinner (1997) once said,

If the stages of our lives were due merely to the passage of time, we should have to find a fountain of youth to reverse the direction, but if many of our problems have other sources, we do not need to look for miracles."

Unfortunately, there are no fountains of youth, no magic pills or procedures, but rather an interdisciplinary approach that holds the key to living well for a very long time.

There are no fail-proof rituals in aging successfully, only examples and models we might hope to follow. It helps to look at lineage, lifestyles, and general outlook on life to put the pieces together to make a comprehensible whole. At the age of 21, it's difficult for me to look so far ahead and to think that I won't always look or feel like I do now. But instead of shrinking back into a hole waiting for old age to find me, I'm finding the beauties of old age first. After all, manifestations of these are no further away than my own family.

My heredity has a mixed relationship with aging. My great-grandparents experienced longevity and lived to be from 80 years old or older, with no traces of chronic disease. However, 3 out of my 4 grandparents were diagnosed with and died from cancer, an odd coincidence that seems as if it should be linked to something—occupational hazards, lifestyle, or just flukes—not so much bad genes, bad life choices, or even bad luck. I wonder how this odd combination of genetics will manifest itself in my surviving grandparent and parents, my siblings, and myself.

My grandmother is now 71 years old and remains my single surviving grandparent, my most inspiring look into the prospect of successful aging. Widowed at the age of 42, she continued to raise four children as a single parent. Throughout the years, she has remained strong and active, continues to work for “as long as I feel like I still can,” lives independently but is about to adopt two new kittens as companions, takes the family to the beach in the summer, exercises regularly, and maintains strong relationships with her children, grandchildren, and family friends. In all three areas of my research, she is as solid as a rock.

In a recent conversation I asked my grandmother what she thought contributed to successful aging. With the anticipated answers of eating well, exercising, and taking care of oneself, I began to realize her strong mental attitude towards the aging process and how she is so willing to adapt to change, overcome obstacles, and have faith that all works out for the best.

There is no bitterness in my grandmother's voice, no remorse for her mistakes, only optimism towards living a good life and improving with each and every day. Though she is willing to admit that her life has not been perfect, she continues to strive to be an active member of society, be true to herself and her own values, and remain faithful to God. My only hope is do be doing the same when I reach her age.

On the converse, I've been witness to other older adults who haven't been as lucky or as optimistic about their own aging. As a nursing student, I don't get to see the healthy, well-adapted adults within the community, but care for those battling both chronic and acute illness and disease. For some of them, damage has already been done, but for others, changes can be made both physically and emotionally. What impresses me so much is the fact that with each and every patient, I encounter a different manifestation of the aging process, including variable lifestyles, beliefs, relationships, and physical changes. Everyone approaches aging differently and this is seen with the care and observation of different elderly people. As comedian George Burns once said,

"I see people who, the minute they get to be 65, start rehearsing to be old. They start taking little steps, they practice grunting when they sit down and grunting when they get up, they drop food on themselves, they take little naps when you're talking to them, and by the time they get to be 70 they've made it—they're a hit—they're now old! Not me." (1983)

I, too, have been witness to 50 year olds who act like they're 70 and 70 year olds who act like they're 50. As a nurse, it will be my job to help coordinate activities to cure ailments, enhance strengths, and rehabilitate after damages have occurred. My job won't just be to help patients

feel better in order to go home, but also to empower them to make lifestyle choices to help them to achieve the highest level of functioning possible.

With examples of both successful and pathological aging evident in my everyday life, it's easy for me to step back and evaluate which life course I'd like to follow. However, I wonder about how lifestyle choices and genetics will influence these outcomes. As pessimistic as I sometimes am, I must constantly remind myself, as well as to others, that risk doesn't equal an actual injury or disease, injury doesn't mean that there is irreversible damage, and a description of damage doesn't give a precise prediction of all possible outcomes. With an optimistic outlook and wise decisions regarding biological, psychological, and sociological changes, the outcomes of the aging process can potentially become more positive. I am ready to face these changes, ready to follow the example set by my grandmother, and ready to help my patients in need within my nursing profession.

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